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Secretion of recombinant hydrophobic peptide analogue - esp. for
secretion of respiratory syncytial virus antigenic peptide(s) suitable
for use in oral vaccines

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NGOC T N

Number of Countries: 023 Number of Patents: 008

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9614409	A1	19960517	WO 95FR1464	A	19951107	199625 B
FR 2726576	A1	19960510	FR 9413307	A	19941107	199626
AU 9641200	A	19960531	WO 95FR1464	A	19951107	199639
			AU 9641200	A	19951107	
ZA 9509417	A	19960828	ZA 959417	A	19951107	199639
EP 791059	A1	19970827	EP 95939336	A	19951107	199739
			WO 95FR1464	A	19951107	
JP 10508479	W	19980825	WO 95FR1464	A	19951107	199844
			JP 96515108	A	19951107	
AU 704594	B	19990429	AU 9641200	A	19951107	199928
NZ 296562	A	19991129	NZ 296562	A	19951107	200031
			WO 95FR1464	A	19951107	

Priority Applications (No Type Date): FR 9413307 A 19941107

Cited Patents: 02Jnl.Ref; GB 2188639; WO 8704185; WO 8704728; WO 8902935

Patent Details:

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WO 9614409	A1	F 47	C12N-015/11	
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Designated States (Regional): AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE				
FR 2726576	A1	36	C12P-021/02	
AU 9641200	A		C12N-015/11	Based on patent WO 9614409
ZA 9509417	A	39	C12N-000/00	
EP 791059	A1	F	C12N-015/11	Based on patent WO 9614409
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JP 10508479	W	40	C12N-015/09	Based on patent WO 9614409
AU 704594	B		C12N-015/11	Previous Publ. patent AU 9641200 Based on patent WO 9614409
NZ 296562	A		C07K-014/245	

Abstract (Basic): WO 9614409 A

Novel process for secreting an active, recombinant peptide analogue
of a natural peptide having at least one hydrophobic region comprises:
(a) culturing cells transformed by a nucleic acid construct comprising:
(i) a sequence coding for a peptide with one or more modifications in a
non-transmembrane hydrophobic region (compared to the natural peptide)
and (ii) appropriate expression and secretion elements; and (b)
recovering the peptide and/or the cells carrying it.

USE - The peptide analogues have modifications in their hydrophobic

regions which do not affect their activity but which do facilitate their translocation across the cell membrane. The recombinant peptides can be secreted into the culture medium or anchored in the cell membrane. Cells displaying recombinant RSV-derived peptides on their surfaces can be used in oral vaccines against respiratory syncytial virus of subgroups A and B.

ADVANTAGE - In RSV G protein-derived analogue peptides, substitution of one or both Cys residues at positions 173 and 186 favours formation of the correct disulphide bond between Cys 176 and 182 which is critical for immunogenicity of the peptides. Further modifications in the hydrophobic region situated upstream of the loop formed by the Cys 176-Cys 182 bridge allow the peptides to cross the cell membrane and to be displayed in the correct (i.e. immunodominant) conformation.

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Title Terms: SECRETION; RECOMBINATION; HYDROPHOBIC; PEPTIDE; ANALOGUE;
SECRETION; RESPIRATION; VIRUS; ANTIGEN; PEPTIDE; SUIT; ORAL; VACCINE

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A61K-035/74; A61K-035/76; A61K-038/00; A61K-039/265; A61K-048/00;
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C12N-005/10; C12N-015/45; C12N-015/69; C12N-015/70; C12P-021/00;
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File Segment: CPI